

**REMARKS**

This Response, submitted in reply to the Office Action dated November 27, 2009, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-18 are all the claims pending in the application.

**I. Rejection of Claims 1-11 and 13-14 under 35 U.S.C. § 103**

Claims 1-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittmann et al. (AMnet: Active Multicasting Network), hereafter Wittmann, in view of in view of Eichert et al. (US 6393474), hereafter Eichert in view of Alexander et al. "Active Network Encapsulation Protocol (ANEP)", hereafter ANEP, further in view of Nomura et al. (US 6930984).

**Claim 1**

Claim 1 is directed to a "method for reserving resources in a packet communication network, wherein the packet network is a hybrid network comprising both active nodes and passive nodes, wherein the active nodes consider information in active packets, said information relating to an execution environment of a respective active node, and wherein an active data flow comprises a set of active packets executed by the execution environment." The Examiner asserts that Wittmann teaches this aspect of the claim.

Wittmann is directed to providing user-tailored Quality of Service (QoS) support for individual group members. It uses active network nodes to individually tailor data streams to the end users service requirements. See Introduction. The active network nodes comprise service modules for QoS filtering and enhanced QoS signaling.

However, there is no teaching or suggestion that the active nodes of Wittmann consider information in active packets. As discussed at, for example, page of the Applicant specification:

"...routers receive appropriate packets which can comprise commands, a code or a program to be executed by the router concerned, as well as associated information. The packets carrying these commands, information, code or program intended for an active node are here referred to as "active packets", as opposed to the other packets, referred to as "passive packets", which do not contain data related to a particular execution environment of the active nodes."

Although Wittmann discloses that some of the network nodes are active, there is no teaching or suggestion that the active nodes consider information in active packets. Further, there is no teaching or suggestion in Wittmann that the information in active packets relates to an execution environment of a respective active node.

In response to Applicant's arguments, on page 2 of the Final Office Action, the Examiner asserts that Wittmann discloses a QF object is included in the received RESV message. The QF object is extracted and forwarded to the QF daemon.

However, the QF object is a Quality of Service Filter object. The QoS filters are MPEG filters such as a frame dropping filter, a re-quantization filter, a monochrome filter and a slicing filter. See 3.1 QoS filter. Further, the QF daemon is responsible for allocation and configuration

of the QoS filter according to the requirements stated in the QF object. See 3.3 Basic implementation architecture.

Therefore, the RESV messages contain filtering information. There is no teaching or suggestion of reserving resources in a packet communication network, or that the active nodes consider information in active packets, and that the information relates to an execution environment of a respective active node. As clearly discussed above, the RESV information of Wittmann is directed to filters for an MPEG. The information in the RESV message is not for reserving resources or for an execution environment of an active node as claimed.

Claim 1 further recites “sending a reservation packet comprising a request for **reservation of resources** constituting an execution environment for the active data flow.” The Examiner asserts that the RSVP message with the QF Object inside teaches this aspect of the claim.

On page 3 of the Office Action, the Examiner asserts that Wittmann provides an example of how QF objects configure or establish QoS parameters between active nodes for a video stream, citing page 899, section 3.3.1 in support.

Wittmann discloses an RSVP daemon extended with an interface to a QF daemon to exchange QF objects. If a QF object is included in a received RESV message, the QF object is extracted and forwarded to the QF daemon. The QF daemon is responsible for allocation and configuration of the QoS filter according to the requirement stated in the QF object. See 3.3 Basic implementation architecture.

Assuming the Examiner is citing the QF object for teaching the claimed request for reservation of resources, the requirements of the QF object is used to allocate and configure the QoS filter. However, there is no teaching or suggestion that the QF object constitutes an execution environment for the active data flow. Further, as discussed above, Wittmann does not disclose the claimed active data flow comprising a set of active packets.

Claim 1 further recites “wherein said reservation packet is in an active packet format.” The Examiner asserts that the RSVP packet containing the QF object is by definition active as it will program the QoS filters within an active node. Further, the Examiner asserts that it is clear that the QF object is intended for an active node. Fig. 2a and section 3.2 of Wittmann discloses extending RSVP to configure and control QoS filters. Fig. 2a illustrates a format of a new RSVP class QoS filter.

However, Wittmann does not teach or suggest that the reservation packet is in the claimed active packet format.

Claim 1 further recites “wherein the active packet format comprises an indicator that indicates that the active packet comprises executable code or identifies a server from which an executable code is downloadable.” The Examiner concedes that Wittmann does not teach this aspect of the claim and cites Eichert to cure the deficiency. However, Applicant submits that assuming Eichert teaches this aspect of the claim, the combination of Eichert with Wittmann is not obvious. Specifically, there is no teaching or suggestion in Wittmann of an active packet, let alone, an active packet format. Further, there is no teaching or suggestion of modifying Wittmann so that an active packet comprises executable code or identifies a server from which

an executable code is downloadable. The Examiner's motivation for the combination is clearly a result of hindsight.

The Examiner asserts that Wittmann and Eichert do not teach "an indicator that indicates that the active packet comprises executable code" and cites ANEP to cure the deficiency. As discussed above, Wittmann is not concerned with an active packet, let alone that an active packet format includes an indicator that indicates that the active packet comprises executable code. ANEP discloses "Version", "Flags", "Type ID", "ANEP Header Length." However, ANEP does not appear to teach or suggest an indicator that indicates that the active packet comprises executable code, as claimed.

Claim 1 also recites "wherein said resources constituting the execution environment [for the active data flow] comprise at least one of memory, passband size, and processing time." The Examiner asserts that Nomura, column 2, lines 8-10, teaches this aspect of the claim.

The Examiner cited programming the QoS filter according to the QF object of Wittmann for teaching reserving resources of the active node. See Office Action at page 3. However, Wittmann is directed to filtering resources. Modifying Wittmann as suggested by the Examiner would be contrary to the explicit teachings of Wittmann, evidencing that the Examiner's reasoning is merely a result of impermissible hindsight. Specifically, such a modification is contrary to the principle of operation of Wittmann which is directed to QoS filtering. MPEP 2143.01 (VI) (If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the

references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).

For at least the above reasons, claim 1 and its dependent claims should be deemed allowable.

## **II. Rejection of claim 12 under 35 U.S.C. §103**

Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Wittmann, Eichert, ANEP and Nomura, and further in view of Applicant's Admitted Prior Art hereinafter referred to as "AAPA." Claim 12 should be deemed allowable by virtue of its dependency to claim 1 for at least the reasons set forth above. Further, AAPA does not cure the deficiencies of Wittmann, Eichert, ANEP and Nomura discussed above.

The Examiner asserts that the AAPA teaches this aspect of the claim. The AAPA does not teach or suggest that the marker identifies that the active packet comprises at least one of command, code, and program for execution in the active node and wherein the reservation packet has the marker indicating the packet is active, as claimed.

Further, modifying Wittmann as suggested by the Examiner is contrary to the principle of operation of Wittmann, evidencing that the Examiner's reasoning is merely a result of hindsight. MPEP 2143.01 (VI).

Therefore, claim 12 should further be deemed allowable.

**III. Rejection of claim 15 under 35 U.S.C. §103**

Claim 15 is rejected under 35 U.S.C. §103(a) as being unpatentable over Wittmann, Eichert, ANEP, and Nomura, and further in view of Deiss et al. (US 2005/0068952), hereinafter referred to as “Deiss”. Claim 15 should be deemed allowable by virtue of its dependency to claim 1 for at least the reasons set forth above. Further, Deiss does not cure the deficiencies of Wittmann, Eichert, ANEP and Nomura discussed above.

**IV. Rejection of claim 16 under 35 U.S.C. §103**

Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Wittmann, Eichert, ANEP and Nomura, and further in view of Simpson et al. (US 2003/0084151), hereinafter referred to as “Simpson”. Claim 16 should be deemed allowable by virtue of its dependency to claim 1 for at least the reasons set forth above. Further, Simpson does not cure the deficiencies of Wittmann, Eichert, ANEP and Nomura discussed above.

**V. Rejection of claim 17 under 35 U.S.C. §103**

Claim 17 is rejected under 35 U.S.C. §103(a) as being unpatentable over Wittmann, Eichert, ANEP and Nomura, and further in view of Frouin (US 2005/0018607), hereinafter referred to as “Frouin”. Claim 17 should be deemed allowable by virtue of its dependency to claim 1 for at least the reasons set forth above. Further, Frouin does not cure the deficiencies of Wittmann, Eichert, ANEP and Nomura discussed above.

**VI. Rejection of claim 18 under 35 U.S.C. §103**

Claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over Wittmann, Eichert, ANEP and Nomura, and further in view of Frouin, and further in view of Simpson. Claim 18 should be deemed allowable by virtue of its dependency to claim 1 for at least the reasons set forth above. Further, Frouin and Simpson do not cure the deficiencies of Wittmann, Eichert, ANEP and Nomura discussed above.

**VII. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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